ARIZONA ECONOMIC INDICATORS

	Month or Quarter	Value	Percent Change from Previous Period	Percent Change from Year Ago	Year-to-Date Value	Year-to-Date Percent Change from Year Ago
GROSS STATE PRODUCT (in Billions of Dollars, at Annual Rate)						
Arizona – Current Dollars	4th Qtr.	43.266	9.1	13.2	NA	NA
Arizona – 1972 Dollars	4th Qtr.	20.945	5.0	13.0	NA	NA
CONSUMER PRICE INDEX (1977 = 100)						
Metropolitan Phoenix	2nd Qtr.	190.8	1.6	6.0	NA	NA
INDEX OF LEADING ECONOMIC INDICATORS (1977 = 100)						
Arizona	May	104.4	– 0.3	0.9	NA	NA
BUILDING PERMITS (Total Dollar Value in Thousands)						
Maricopa County	April	377,880	18	2	1,412,247	6
Pima County	April	71,719	– 1	– 7	274,143	0
Balance of State	April	77,236	43	44	218,240	– 2
Arizona	April	526,835	18	5	1,904,628	4
TOTAL HOUSING UNITS AUTHORIZED						
Maricopa County	April	4,246	– 15	– 23	20,022	– 10
Pima County	April	1,195	– 3	– 30	4,883	– 24
Balance of State	April	2,032	35	62	5,793	17
Arizona	April	7,473	– 3	– 12	30,736	– 8
HOME SALES						
Maricopa County – Number	May	4,214	– 27	2	20,817	– 11
Maricopa County – Median Price	May	72,000	0	2.9	71,700	2.9
ELECTRICAL POWER SALES (In Millions of Kilowatt Hours)						
Arizona	May	2,964.4	14.0	– 0.7	13,418.0	7.1

NA = Not Applicable.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

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Metro Phoenix Housing Affordability Indexes

New Indexes Reveal Higher Home Affordability in '85

Homes in the Phoenix metropolitan area are more affordable in 1985 than at any time in at least four years, according to Housing Affordability Indexes (hereafter referred to simply as "index") for new and resale housing, developed by the Bureau of Business and Economic Research and the Arizona Real Estate Institute in the ASU College of Business. The new measure reveals that declining mortgage interest rates and more rapid gains in household income than in home prices have improved housing affordability, although not to the level of the 1970s.

INTERPRETATION OF THE INDEX

As a general indicator of people's ability to afford a house, the index reflects conditions characteristic of the Phoenix metropolitan area. Beginning in 1981, the first year that local data became available on home prices, the index quantifies the relationship between median household income and

See "Affordability," page 2

GSP Growth Rebounds; Remains Slow

GSP growth accelerated to 6.2 percent during the first quarter, 1985. This rate remained below the average of 1983 and 1984 (see Table 1 and Figure I) and was barely greater than the long-term average of 5.5 percent.

Rapid expansion of the Arizona economy ended during the fourth quarter, 1984 (one quarter later than the initial slowdown of the national economy), when the adjusted growth rate of the Arizona Gross State Product (GSP) was almost nil, at 0.5 percent. Well below the original fourth quarter estimate of 4.6 percent, this sharp downward revision resulted from reduced personal income estimates by the U.S. Bureau of Economic Analysis.

SECTORAL PERFORMANCE

Growth of all Arizona industries slackened during the fourth quarter, 1984, and/or the first quarter, 1985. As with the national economy, local effects of deceleration varied by sector, both in magnitude and in quarterly timing. For example, growth in the

See "1st Qtr. GSP," page 4

In This Issue

5 2nd Quarter Home Sales
6 July Purchasing Survey
7 AZ Leading Index, June
8 AZ Economic Indicators

ARIZONA BUSINESS

VOLUME 32, NUMBER 7
SEPTEMBER 1985

TABLE 1
HOUSING AFFORDABILITY:
DEFINITION OF TERMS

Term	Definition
Median sales price	This measure divides the distribution of home prices into two equal parts, with one-half the prices above it, and the other half below it. The median sales price is a more reliable indicator of the home sales prices for an area than is average sales price because the former is less likely to be skewed by a few highly priced homes.
Interest rate	The effective interest rate on conventional mortgage loans for single family homes includes the contract interest rate plus fees and charges, or "points," amortized over a 10-year period.
Income	Median gross household income is estimated from national and local median effective buying income (similar to disposable income), published in the *Sales and Marketing Management* magazine.
Income qualification factor	The index uses a 28 percent income qualification factor. Federal National Mortgage Association guidelines state, "Monthly housing expenses should not represent more than 25 percent to 28 percent of gross monthly income."
Loan amount	The loan amount is the median price of a home minus the downpayment. The Metropolitan Phoenix Housing Affordability Index assumes a downpayment of 15 percent.
Loan-to-value ratio	The loan-to-value ratio describes the percentage that the loan amount constitutes of the sales price on a median-priced home.
Monthly housing payment	As defined by FNMA, a housing payment ("housing expenses") comprises principal, interest, taxes and insurance. Since data on taxes and insurance are not available, they are estimated at 15 percent of total housing expenses, using figures supplied by the National Association of Home Builders.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

"Affordability," from page 1

a financial package for the purchase of a single family home.

Components of the financial package include:

- the median sales price of a new or resale home
- A fixed-rate, conventional, 30-year mortgage with a loan-to-value ratio of 85 percent
- an income qualification standard of 28 percent

Table 1 provides a definition of terms.

An index above 100 suggests that a median-income household is able to qualify for a median-priced home, given the "financial package" explained above. For example, an index of 89 indicates that a median-income household earns only 89 percent of the income needed to qualify for a median-priced home.

A small change in a component of the financial package can cause a relatively large change in the index. For instance, a one-percentage-point change in the loan-to-value ratio or in the income-qualification factor causes a three-point change in the index. To illustrate, the size of the downpayment (loan-to-value ratio) is, in part, a choice of the buyer. The index assumes a loan-to-value ratio of 85 percent; however, if buyers chose to put 25 percent down, the affordability index for resale homes in the Phoenix area would jump 29 points, from 87 to 116.

The income qualification factor used in the Phoenix area index is liberal, as

TABLE 2
HOUSING AFFORDABILITY INDEX, RESALE HOMES
Metropolitan Phoenix

Period	Median Sales Price	Interest Rate	Loan Amount	Monthly Housing Payment	Median Gross Monthly Income	Affordability Index
1981	$65,000	16.7%	$55,250	$910	$1,990	61
1982	65,000	16.7	55,250	910	2,160	67
1983	68,000	13.7	57,800	790	2,270	80
1984						
1st Qtr	69,525	13.8	59,100	810	2,400	83
2nd Qtr.	70,500	14.3	59,925	850	2,450	81
3rd Qtr.	73,000	14.8	62,050	910	2,490	76
4th Qtr.	72,225	13.9	61,400	850	2,510	82
Annual	71,250	14.2	60,575	860	2,470	81
1985						
1st Qtr.	70,900	13.4	60,275	810	2,540	88
2nd Qtr.	72,500	13.4	61,625	820	2,560	87

Source: Bureau of Business and Economic Research and the Arizona Real Estate Institute, College of Business, Arizona State University. Interest rates are from the Federal Home Loan Bank Board *News,* and income figures are derived from the Annual Buying Survey in *Sales and Marketing Management.*

outlined in the Federal National Mortgage Association (FNMA) guidelines. If the factor were tightened from 28 percent to 25 percent — as it was recently by the FNMA on loans with less than 10 percent down — the index for resale homes during the second quarter, 1985, would decrease nine points, from 87 to 78.

Changes in household income or the mortgage term would have a similar impact on the index. An individual's ability to afford a house depends on the components of their specific financial package.

QUALIFYING INCOME

By setting the index at 100, the gross monthly income needed to qualify for a new or resale home can be calculated. For example, during the second quarter, 1985, Phoenix area households earning the median income had only 78 percent of the income necessary to qualify for a loan on the median-priced new home and 87 percent of that needed for a loan on a median-priced resale home. In other words, a household needed a gross monthly income of $3,060 to afford a new home and a gross monthly income of $2,930 to afford a resale home.

HISTORY OF HOUSING AFFORDABILITY

Median sales prices for both resale and new homes have experienced slow growth during the last four years, compared to the rapid growth of home prices during the 1970s. A decline in

FIGURE I
HOUSING AFFORDABILITY INDEX, RESALE HOUSING
METROPOLITAN PHOENIX AND THE UNITED STATES

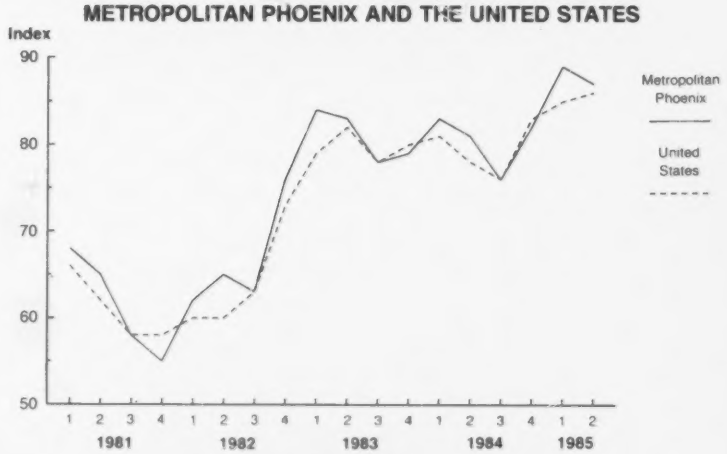
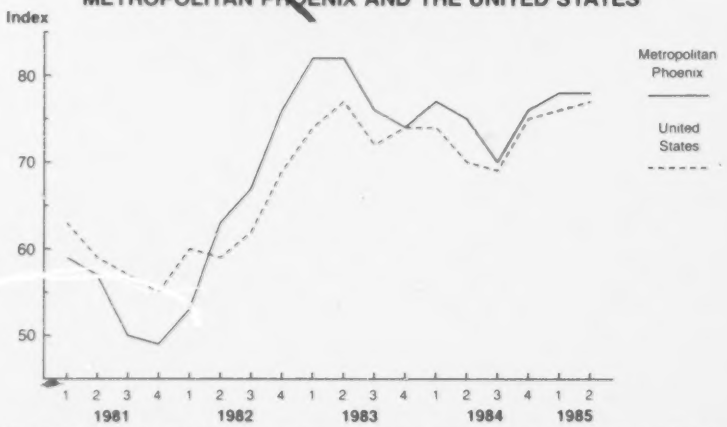


FIGURE II
HOUSING AFFORDABILITY INDEX, NEW HOUSING
METROPOLITAN PHOENIX AND THE UNITED STATES



Source (Figures I and II): Bureau of Business and Economic Research and the Arizona Real Estate Institute, College of Business, Arizona State University.

TABLE 3
HOUSING AFFORDABILITY INDEX, NEW HOMES
Metropolitan Phoenix

Period	Median Sales Price	Interest Rate	Loan Amount	Monthly Housing Payment	Median Gross Monthly Income	Affordability Index
1981	$74,800	16.7%	$63,575	$1,050	$1,990	53
1982	66,100	16.7	56,175	920	2,160	65
1983	70,050	13.7	59,550	820	2,270	78
1984						
1st Qtr	74,750	13.8	63,525	870	2,400	77
2nd Qtr.	75,875	14.3	64,500	920	2,450	75
3rd Qtr.	79,250	14.8	67,375	990	2,490	70
4th Qtr.	78,700	13.9	66,900	930	2,510	76
Annual	76,950	14.2	65,400	920	2,470	75
1985						
1st Qtr.	79,925	13.4	67,925	910	2,540	78
2nd Qtr.	81,150	13.4	68,975	920	2,560	78

Source: Bureau of Business and Economic Research and the Arizona Real Estate Institute, College of Business, Arizona State University. Interest rates are from the Federal Home Loan Bank Board *News*, and income figures are derived from the Annual Buying Survey in *Sales and Marketing Management*.

interest rates from 19 percent in late 1981 to 13 percent today also has contributed to home affordability.

Although resale homes in metropolitan Phoenix are more affordable today than at any time during the last four years, a median-income household in the second quarter, 1985, earned only 87 percent of the income necessary to qualify for a median-priced resale home (see Table 2).

Over the last four years, affordability of resale homes in the Phoenix area has been about the same or slightly higher than national affordability of resale homes (see Figure I), due primarily to a lower median sales price for Phoenix area resale homes.[1] Conversely, new homes in the Phoenix area were less affordable in 1981 than they were nationally (see Figure II). In the second quarter, 1985, they have the same affordability index.

Two fundamental factors contributed to improved housing affordability in the Phoenix area during the second quarter:

- a greater decline in interest rates locally than nationally
- a median new-home sales price about $3,500 less than the median sales price of new homes nationwide

During the recession in 1982, the affordability of a new home in the Phoenix area jumped above the national average. This was due exclusively to a drop locally in the median price of a new home, since the annual interest rate and the annual median household income were identical for the Phoenix area and the United States. Technically, the median price of a new home did not decrease; the housing market demanded lower-priced homes, so new home builders offered smaller homes with fewer amenities, at lower prices.

OUTLOOK

Housing affordability has improved in 1985 and is well above its low point of the last recession. However, the index is not expected to improve much more during the next year since further declines in mortgage interest rates are unlikely. In addition, gains in household income probably will slow, in response to sluggish economic growth, to approximately the rate of appreciation in home values.

— **Jacqueline Fifield**
Research Analyst

— **Jay Q. Butler**

Dr. Butler is Associate Professor of Real Estate in the ASU College of Business and Director of the Arizona Real Estate Institute.

[1]A national Housing Affordability Index for existing homes is published by the National Association of Realtors. Because assumptions applied in that study differ from those underlying the metropolitan Phoenix study, the Bureau of Business and Economic Research and the Arizona Real Estate Institute developed two national indexes (new and resale) for comparison purposes. The NAR index is not referred to in this article.

"1st Qtr. GSP," from page 1
construction; manufacturing; and transportation, communications and public utilities industries slowed during the fourth quarter, 1984, but rebounded during the first quarter, 1985. In contrast, the trade industry and the finance, insurance and real estate sector each remained strong during the fourth quarter, 1984, but slumped during the first quarter, 1985. Only the services industry maintained steady, albeit slower, growth.

OUTLOOK

The relatively slow expansion of the Arizona economy during these two quarters suggests that the 1985 GSP performance will not be as robust as originally perceived. This conclusion is corroborated by the state's unemployment rate, which continued to rise throughout the second quarter, 1985.

The greater-than-expected deceleration in the GSP growth rate corresponds to recent GNP movement. With the downward revision for sec-

TABLE 1
QUARTERLY ECONOMIC GROWTH

	Arizona Gross State Product				Gross National Product
Quarter	*Billions of Current Dollars, Annualized*	*Billions of 1972 Dollars, Annualized*	*Annualized Percent Change (1972 Dollars)*	*Annualized Percent Change (Adjusted GSP)**	*Annualized Percent Change (1972 Dollars)*
First, 1983	$33.802	$16.646	12.6%	15.9%	3.3%
Second, 1983	35.571	17.467	19.7	22.1	9.4
Third, 1983	37.212	18.119	14.9	13.4	6.8
Fourth, 1983	38.223	18.534	9.2	5.7	5.9
First, 1984	39.770	19.535	21.6	22.5	10.1
Second, 1984	40.840	19.897	7.4	11.7	7.1
Third, 1984[r]	42.330	20.708	16.3	12.8	1.6
Fourth, 1984[r]	42.762	20.774	1.3	0.5	4.3
First, 1985	43.948	21.010	4.5	6.2	0.3

*The adjusted GSP is the annualized GSP in billions of 1972 dollars, minus the contributions of the agriculture and mining industries.

[r] Revised.

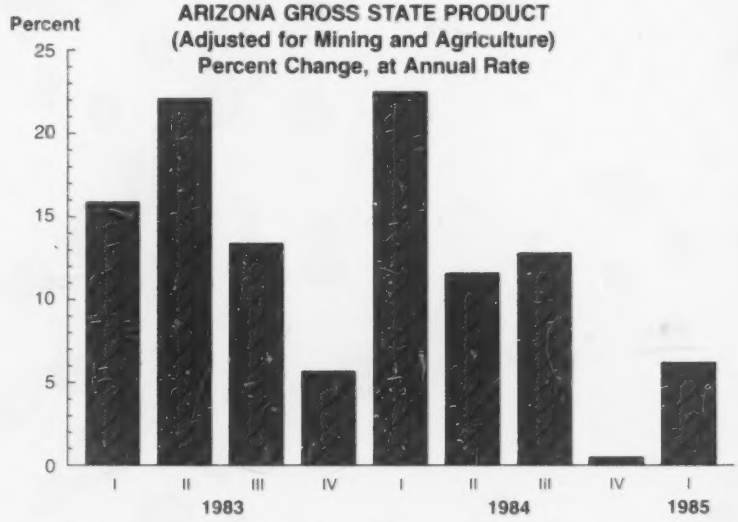
Source: Bureau of Business and Economic Research, College of Business, Arizona State University; in cosponsorship with the ASU College of Business Dean's Council of 100.

ond quarter GNP, the annual GNP growth rate is nearly certain to total less in 1985 than the long-term average of 3 percent. The 2.4 percent estimate derived from the national Index of Leading Economic Indicators (August 1985 *Arizona Business*), which was far less than most forecasts, now appears to be the best prediction. However, should national economic performance continue to fall short of expectations during the second half of 1985, annual GNP growth may barely reach 2 percent.

In Arizona, therefore, GSP growth closer to the long-term average of 5.5 percent now seems more likely than the 7.2 percent gain that the Bureau had forecast. The prediction derived from the Arizona Index of Leading Economic Indicators was 5.8 percent.

— **Tom R. Rex**
Research Manager

FIGURE I
ARIZONA GROSS STATE PRODUCT
(Adjusted for Mining and Agriculture)
Percent Change, at Annual Rate



Source: Bureau of Business and Economic Research, College of Business, Arizona State University

Valley Home Sales Up 37 Percent During Second Quarter

The number of homes sold in the Phoenix metropolitan area during the second quarter jumped 37 percent from the low first quarter level (see Table 1). Second quarter sales nearly attained the level of second quarter, 1984, which was the highest since this series began in 1981.

Second quarter acceleration resulted from both a typical seasonal increase in home sales and the decline in mortgage interest rates that began late last year and continued through early 1985. Further lowering of interest rates during late May was not reflected in second quarter sales; thus, additional sales gains are possible during the third quarter.

MEDIAN SALES PRICE AND APPRECIATION RATE

Although the median sales price rose during the second quarter, it remained less than the peak value of the third quarter, 1984. The rate of gain in home prices continued below the general inflation rate except for new single family homes, which experienced a 7.0 percent increase since second quarter, 1984, slightly exceeding the Valley's 6.0 percent inflation rate. Higher new home prices are attributable to greater building costs, especially higher land prices, and to a shift in demand toward more expensive homes. Resale townhouses and condominiums have lost value, with the median sales price during the second quarter dropping 3.1 percent below the level of second quarter, 1984.

The second quarter appreciation rate for single family homes remained at 0.7 percent for the third consecutive quarter. The value of homes in the Phoenix area gained less than 3 percent during the year ended second quarter, 1985.

—**Tom R. Rex**
Research Manager

TABLE 1
METROPOLITAN PHOENIX HOME SALES

	Single Family			Townhouse/Condominium			Grand
Second Quarter, 1985	*Resale*	*New*	*Total*	*Resale*	*New*	*Total*	**Total**
Median sales price	$72,500	$81,150	$74,950	$63,000	$63,950	$63,450	$72,650
Percent change from:							
First quarter, 1985	2.3	1.5	2.7	0.8	10.3	2.3	1.4
Second quarter, 1984	2.8	7.0	4.1	−3.1	1.6	−0.9	3.1
Number of sales	9,982	2,545	12,527	1,410	912	2,322	14,849
Percent change from:							
First quarter, 1985	24	51	28	55	393	112	37
Second quarter, 1984	−5	0	−4	−7	15	1	−3

Source: Bureau of Business and Economic Research, College of Business, Arizona State University; from data supplied by Marketron Services, Inc., Phoenix.

Purchasing Indicators Flounder in July Doldrums

July found the Arizona economy still in the doldrums, for the fourth consecutive month. New orders, production, and employment all went up at a slower rate than in June, each registering its smallest increase of 1985. Arizona firms are cautious about the economy's direction over the balance of the year and continue to reduce inventory levels.

The economy likely will plod along throughout 1985, with growth at a moderate, often erratic, pace. No major downswing is expected, nor will the growth curve tilt markedly upward. On the positive side, inflation will remain restrained, and interest rates, if they change at all, are likely to be forced downward. The very large foreign trade deficit will continue to depress many manufacturing operations. Even if the dollar were to plummet, which is highly unlikely, it would take time for that to have a major effect on our industrial machine. In short, the second half, 1985, prediction is for more of the same.

Table 1 presents the results of the July survey of Arizona purchasing managers.

PRICES

Prices paid for major purchased items rose again in July, but the increase was small, extending the period of relative price stability into its second year. The slow inflation rate of the past year has been a key factor permitting the economic expansion to continue, and inflation shows no sign of heating up over the balance of the year.

DELIVERY TIME

Delivery time on shipments from vendors registered only a small increase in July, showing that vendors do not have a large backlog of orders awaiting shipment. Increases in the delivery time indicator during 1985 have been smaller than the lowest monthly increase recorded during 1984, reflecting a leveling off in the overall economic growth rate.

INVENTORIES

Inventory levels of purchased materials dropped slightly, marking the third month in a row that Arizona firms have reduced their inventory investment. The squeeze on inventory began a year ago, and Arizona firms have maintained a very cautious attitude toward additional inventory investment, holding stocks almost constant. This has been a major factor causing the overall leveling in the economy.

NEW ORDERS

New orders went up in July, but the rate of increase was less than in June and the smallest so far this year. While new order growth moves the Arizona economy to higher levels, the growth rate is marginal and far below that of the first two years of this economic expansion.

PRODUCTION

Production advanced in July at its lowest rate not only of 1985 but since January 1983, the beginning of the recovery. The production indicator has recorded progressively smaller increases during 1985, reacting closely to the new order rate.

EMPLOYMENT

Employment showed a slight gain, for the seventh consecutive month. However, the rate of increase has declined each month, and July's advance was the smallest since December. No major increase in Arizona payrolls is likely over the balance of 1985, and net employment decreases are likely.

PURCHASES

Purchases of materials and supplies by Arizona firms almost doubled the June figure. Hopefully, this is an early sign of a production buildup; however, that judgment must await another several months of data.

— Harold Fearon

Dr. Fearon is chairman of the Department of Purchasing, Transportation, Operations in the ASU College of Business and is the National Association of Purchasing Management Professor.

TABLE 1
JULY PURCHASING SURVEY

	Percent of Purchasing Managers Indicating Each Response (July compared to June)		
Key Indicators	*Higher*	*Same*	*Lower*
Prices paid for major commodities	19	72	9
Delivery time from vendors	20	64	16
Purchased materials inventory level	28	40	32
New orders received	34	41	25
Production	33	44	23
Employment	20	64	16
Purchases	37	44	19

Source: Purchasing Management Association of Arizona and the Purchasing Management Association of Southern Arizona.

Arizona Purchasing Survey

Now in its 23rd year of monthly reporting, Dr. Harold Fearon's survey of Arizona business conditions utilizes data from a questionnaire sent to members of the purchasing management associations of Arizona and southern Arizona. It asks them to indicate the direction of activity — higher, unchanged, or lower — of seven key measures of economic activity in the month just ended. These purchasing managers deal daily with supply, demand, and price factors in the marketplace; their aggregate readings have accurately charted the state's economic course for two decades, providing timely data on turning points.

Arizona Leading Index Surges to Prior Peak

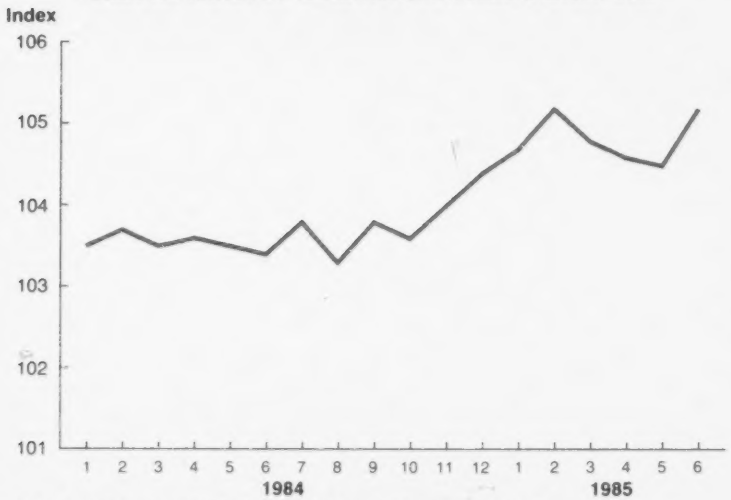
The Arizona Index of Leading Economic Indicators jumped 0.7 percent in June. The largest gain since April 1983 followed three consecutive monthly declines (see Figure I) and pushed the index back to its prior peak of 105.2, up from a revised 104.5 in May (1977 = 100).

June's strength was widespread, with improvement in 70 percent of the components — the highest diffusion index since December 1983. Registering between 30 percent and 60 percent in each of the prior 17 months, the diffusion index had signaled stagnant economic conditions.

A large gain in the national money supply (M2) led the June advance. Despite an increase in the state's unemployment rate, the number of new unemployment insurance claims declined, also a positive leading signal. In addition, the purchased materials inventory level grew, partially offsetting a large drop in May (see Table 1).

The greatest negative impact on the index was the fourth consecutive decline in the value of residential building permits. This market had not yet reacted to the lowering of mortgage interest rates in late May.

FIGURE I
ARIZONA INDEX OF LEADING ECONOMIC INDICATORS



Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

TABLE 1
NET CONTRIBUTION OF INDIVIDUAL COMPONENTS TO THE ARIZONA INDEX OF LEADING ECONOMIC INDICATORS

	Net Contribution +			
	March	*April*	*May*	*June*
Delivery Time*	−.06	.04	−.05	.05
Inventory Levels*	.02	.05	−.15	.10
New Orders*	.01	−.06	−.01	.04
Production*	−.04	.02	−.05	−.01
Employment*	−.01	.04	−.02	.02
Residential Building Permits	−.08	−.09	−.02[r]	−.08
Unemployment Insurance Claims	.03	−.17	.01	.15
Average Workweek, Manufacturing	−.11	.12	−.19[r]	−.01
Money Supply	−.07[r]	−.27[r]	.29[r]	.55
Change in Sensitive Materials Prices	−.04	.08	.10	.02
OVERALL INDEX	−.35[r]	−.24[r]	−.09[r]	.83

[r] Revised.

+ The net contribution of each component is calculated by multiplying the monthly change in its index by its relative importance.

* Based on indicators from the purchasing management associations of Arizona and southern Arizona.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

OUTLOOK

June's large increase merely offsets index declines of the three prior months. The leading index continues to provide no signal of change in the Arizona economy through the end of 1985 — neither a recession nor a return to consistent, strong growth.

Nationally, the same situation prevails. A large gain in the national index in June is not sufficient to signal the return to a strong economy. While the growth recession may be interrupted by a stronger quarter of economic growth, as occurred during the fourth quarter, 1984, there is no reason to expect slow growth conditions to end. Declines in both interest rates and the strong dollar have not been large enough to have a significant impact on the economy.

The effect of the budget reduction package passed by Congress August 1 on the root cause of the current growth recession, i.e., the large federal budget deficit, is unclear at this writing August 5. The stock and financial markets showed little immediate reaction, probably because the package was both disappointing, with the magnitude of cuts less than desired, and surprising, since some analysts were doubtful that Congress would take action this year, much less prior to the August recess.

Thus, while the package's effect probably will be minimally positive, a huge deficit will remain. This should keep the dollar relatively strong, the trade deficit relatively large, and economic growth relatively slow. As a result, the signals sent by the leading indexes — more slow but erratic growth — likely are still valid.

—Tom R. Rex
Research Manager

Correction

Please note the following correction to Table 2 of the Arizona Leading Index article in the August 1985 *Arizona Business* (page 10). The headings for the second and fourth columns of numbers should be reversed. "Cumulative Change from December 1983 Index" should head the fourth column of numbers, and "Cumulative Change from October 1977 Index" should head the second column of numbers.

ARIZONA ECONOMIC INDICATORS

	Month or Quarter	Value	Percent Change from Previous Period	Percent Change from Year Ago	Year-to-Date Value	Year-to-Date Percent Change from Year Ago
GROSS STATE PRODUCT						
(In Billions of Dollars, at Annual Rate)						
Arizona – Current Dollars	1st Qtr.	43.948	11.1	10.5	NA	NA
Arizona – 1972 Dollars	1st Qtr.	21.010	4.5	7.5	NA	NA
CONSUMER PRICE INDEX (1977 = 100)						
Metropolitan Phoenix	2nd Qtr.	190.8	1.6	6.0	NA	NA
INDEX OF LEADING ECONOMIC INDICATORS (1977 = 100)						
Arizona	June	105.2	0.7	1.7	NA	NA
BUILDING PERMITS						
(Total Dollar Value in Thousands)						
Maricopa County	May	340,188	– 9	13	1,752,434	8
Pima County	May	72,398	0	– 27	346,541	– 7
Balance of State	May	57,721	– 25	– 11	275,961	– 4
Arizona	May	470,307	– 10	1	2,374,936	3
TOTAL HOUSING UNITS AUTHORIZED						
Maricopa County	May	4,165	– 1	– 17	24,187	– 11
Pima County	May	1,112	– 6	– 20	5,995	– 23
Balance of State	May	1,403	– 31	13	7,196	16
Arizona	May	6,680	– 10	– 13	37,416	– 9
HOME SALES						
Maricopa County – Number	June	4,889	16	– 2	25,706	– 9
Maricopa County – Median Price	June	74,000	2.8	3.5	72,225	3.1
ELECTRICAL POWER SALES						
(In Millions of Kilowatt Hours)						
Arizona	June	3,465.4	16.9	9.6	16,883.4	7.6

NA = Not Applicable.

Source: Bureau of Business and Economic Research, College of Business, Arizona State University.

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ARIZONA STATE UNIVERSITY ■ COLLEGE OF BUSINESS
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Transportation Finance Law, H.B. 2306

Arizona Voters To Decide Revenue/Improvement Level

By voting October 8 on a one-half percent sales tax increase, Maricopa County voters will fulfill the mandate in a crucial provision of House Bill 2306, passed by the Arizona State Legislature May 3 and approved by Governor Bruce Babbitt five days later. This comprehensive, 20-year transportation funding package gives other counties the option of calling similar elections to increase their sales tax for transportation purposes. The law's intent is to allow each county to evaluate and act upon its unique transportation needs.

In Maricopa and Pima counties, voter approval of a sales tax increase to fund freeways and expressways would also authorize formation of a Regional Public Transportation Authority (RPTA). The RPTA in Maricopa County would develop a plan for rapid transit and, possibly, for a regional bus system. Upon RPTA approval of a plan, another election would be called (no sooner than September 1, 1988) for voters to decide on an additional one-half percent sales tax increase to fund public transportation. Pima County's RPTA would be responsible for developing a regional bus system as an expansion of Tucson's existing bus system.

A city or town would join the RPTA by passing an ordinance and contributing a percentage of its Local

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Quarterly Forecast Update

When Will the Growth Recession End?

The awaited and frequently predicted return to solid economic growth has yet to materialize. Already postponed from the second quarter, 1985, when GNP was revised down from a flash estimate of 3.1 percent growth to a mere 2.0 percent advance, recovery from the growth recession has yet to appear in third quarter data. At the time of this writing on August 30, economic results from July are uniformly mediocre. Thus, the base economic forecast of the Bureau of Business and Economic Research remains unchanged: continued slow, erratic growth.

One major unknown of the last quarterly forecast (July 1985 *Arizona Business)* has been resolved, though not satisfactorily: Congress took action to reduce the federal budget deficit. The Congressional package, however, is widely perceived not as a

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TABLE 1
TRANSPORTATION FINANCE LAW, H.B. 2306
SUMMARY OF PROVISIONS

Provision	Description	20-Year Revenue Projections
Fuel tax monies for Arizona Highway Fund, counties, cities and towns	increases fuel taxesfrom 13¢/gallon to 16¢/gallon, beginning January 1, 1986. Distributes monies derived from the 3¢ fuel tax increase by the following formula: 1) 64% to the State Highway Fund 2) 14% to Maricopa County, split among the county and cities within the county, on the basis of population 3) 8.5% to Pima County, split among the county and cities within the county, on the basis of population 4) 8% to other counties, based on unincorporated population 5) 5.5% to cities in other counties, based on incorporated population	**Total Revenues** $889.8 million 1) Highway Fund $569.5 million 2) Maricopa County $124.6 million 3) Pima County $ 75.6 million 4) Other counties $ 71.2 million 5) Cities in other counties $ 48.9 million
Distribution of monies to the State Highway Fund	**Alternatives** 1) If the federal excise tax on small cigarettes is reduced to $4 per 1,000 (8¢/pack) on or before June 30, 1990, monies from a state tax of 8/20 cent per cigarette (8¢/pack) will be placed in the highway fund; or 2) If the federal excise tax is not reduced as described above, one-half of the state general fund portion of the vehicle license tax is shifted to the highway fund until July 1, 1990, and the fuel tax is increased, beginning July 1, 1990, an additional 1 cent per gallon, with the monies generated from the fuel tax being placed in the highway fund.*	1) $493.5 million 2) $288 million
Countywide, voter-approved sales tax increases of up to 1/2% for not more than 20 years	1) **Maricopa County** A special election will be called between September 10, 1985, and October 31, 1985. The new tax monies may be used for certain controlled-access highway projects. Upon approval of the tax, a Regional Public Transportation Authority (RPTA) is created to develop a plan for rapid transit and possibly a regional bus system. If the RPTA approves a plan, the County Board of Supervisors shall order an election not sooner than September 1, 1988, to approve another 1/2% sales tax increase for public transportation. 2) **Pima County** Allows the Pima County Board of Supervisors to call a special or general election after September 10, 1985. The new tax monies may be used for certain controlled-access highways, arterial roads or grade separation projects. Upon sales tax approval, an RPTA is formed to operate a regional bus system. 3) **Other Counties** Allows board of supervisors to call a special or general election after September 10, 1985. Distributes these tax monies to the county and to individual cities and towns within the county as prescribed by the board of supervisors. Monies may be used for street and highway purposes.	1) Maricopa County, subtotal $5.48 billion Roads 5.31 billion Bus system 167.7 million Public transportation planning (maximum) 8 million Additional 1/2% sales tax for public transportation** $4.79 billion 2) Pima County, subtotal $1.42 billion Roads 1.34 billion Bus system 83.5 million 3) Other counties, subtotal $1.33 billion
New uses for State Highway Fund monies	1) Permits highway fund monies earmarked for controlled-access highways in Pima County to be used also for certain arterial street and highway projects and for grade separation projects. 2) Allows the use of up to $5 million in highway fund monies each year for entry roads to state parks and roads within state parks.	
New powers and duties for director of Arizona Department of Transportation	1) Coordinate road building activity generated by state funding. 2) Assist counties in developing their regional transportation plans. 3) Annual report to Legislature on expenditure of monies for certain major streets and highways. 4) Maintain controlled-access routes in Maricopa and Pima Counties. 5) Conduct certain program review processes in 5th, 10th and 15th years of new funding program.	

* The vehicle license tax is a tax in lieu of all ad valorem property taxes on motor vehicles. The tax is based on vehicle value, according to ARS 28-1591.

** The $4.79 billion estimate is for a 14-year period, but no statutory limitation is set regarding the duration of the tax. The county board of supervisors must establish the length of time the tax is to be in effect.

Source: Arizona House Bill 2306; Laws 1985, Chapter 308, First Regular Session.

"Transportation," from page 1
Transportation Assistance Fund (lottery) allocation for public transportation (three-fourths of its LTAF if population is less than 100,000, one-third of its LTAF if population is 100,000 or more). The county, representing the area's unincorporated sections, would also join by passing a resolution stating its intent to participate. Each member municipality would be required to contribute to the RPTA "public transportation fund" an amount from local general fund monies, as determined by the RPTA governing board. In Maricopa County, that governing board would comprise one elected official from, and appointed by, the county and each municipality.

REVENUE IMPACT OF ALL PROVISIONS

In addition to the sales tax provision, H.B. 2306 includes the following key components:

- A 3-cent-per-gallon fuel tax increase, beginning January 1, 1986
- Either (a) a higher state cigarette tax or (b) a 4th-cent fuel tax increase and a shift of vehicle license tax monies from the state general fund to the state highway fund
- Changes in the permitted uses of the state highway fund
- A series of new powers and duties for the director of the Arizona Department of Transportation

Maximum potential impact of the new legislation — $14.40 billion in revenue over the next 20 years — would be achieved only if all counties approve a one-half percent increase, and the 16-cent federal excise tax on small cigarettes is reduced to 8 cents a pack (allowing the state to levy its own 8-cent-per-pack cigarette tax and to place resulting revenues in the highway fund).[1] Table 1 provides descriptions and 20-year revenue estimates for each of the law's provisions (such long-term projections are subject to significant variation, however).

EVOLUTION OF HOUSE BILL 2306

In 1981, the state legislature identified a need for transportation facilities and enacted an extensive transportation finance bill. S.B. 1001 shifted state general fund revenue to highway needs, increased tax rates for commercial motor carriers, raised vehicle license tax rates, authorized counties to issue bonds and borrow funds, and created or increased various commercial vehicle registration fees. Recognizing a further need for transportation dollars, the legislature passed S.B. 1100 in 1982, which called for an additional fuel tax of 5 cents per gallon, to be phased in over three years. It was thought that these revenue measures would be sufficient to fund state transportation improvements for many years.

Near the end of 1984, however, state and local transportation officials and business and community leaders sensed that transportation dollars were already falling short of even the immediate needs. Senate researchers found that from fiscal year 1981-82 through 1984-85, state highway user revenues had fallen short of projected levels by nearly $300 million. Additionally, public hearings and route selection delays had resulted in lack of progress in building major freeways and expressways, especially in major metropolitan areas. This led to calls for transportation funding increases ranging from $1.4 billion to approximately $8 billion over the next 10 to 20 years.

Funding Proposals

The first formal funding proposals were submitted by the Outer Loop Financing Task Force and the Phoenix Metropolitan Chamber of Commerce. The former group, comprising Maricopa County supervisors, Valley mayors and a city council member, proposed a plan to complete an Outer Loop Freeway in 10 years; funding would come from $300 million in county general obligation bonds, a portion of the state highway fund monies dedicated to controlled-access routes in Maricopa County, and Maricopa County capital improvement program funds. This recommendation, adopted in August 1984, carried a total cost of $482 million in constant 1983 dollars.

In November 1984, the Maricopa County Board of Supervisors endorsed a plan offered by the Phoenix Metropolitan Chamber of Commerce, primarily because the "Chamber Plan" provided funds for a more comprehensive freeway/expressway system in the Phoenix metropolitan area over a 20-year period. This was an important development because the plan's funding mechanism, a one-half percent voter-approved sales tax increase to be levied in Maricopa County on the state tax base (excluding food), was to become the key component in several bill drafts, including the final adopted version of H.B. 2306. Another important element of the Chamber Plan was its inclusion of a list and map of routes to be completely constructed by the end of the 20-year period.

Legislative Process

In his January 14, 1985, Opening Message to members of the 37th Legislature, Governor Bruce Babbitt perceived the importance of providing for Arizona's transportation needs, as follows:

> "The quadrennial Transportation Needs Study, just delivered to the Legislature, shows a substantial shortfall between future costs and projected revenues.[2] The situation is particularly critical in the urban areas, where traffic is outstripping the capacity of existing streets. Plans have been developed for major new regional highways which cannot be realized under current revenue projections."

The State Legislature also recognized the importance of addressing the transportation issue. As a forum for proposals and discussion, the Legislature held joint meetings of the Senate and House Transportation Committees on January 17 and 24. Many of the people who addressed the Joint Committee offered support for the Chamber Plan, making it a likely component of the final bill. The Arizona Department of Transportation (ADOT) demonstrated the need for state highway system improvement outside the major metropolitan areas. Their separate funding plan was the first official proposal to contain monies for Pima County and for the state highway system.

Numerous speakers recommended that funds be provided for public transportation. Among these proponents were representatives of the cities of Phoenix and Tucson, the

[1] The minimum 20-year revenue projection of $1.18 billion would result if no county were to approve a countywide sales tax increase, and the federal excise tax on small cigarettes were not reduced by 8 cents a pack.

[2] Arizona Department of Transportation, *Status and Performance Report for Arizona's Transportation System*, 1985.